NONSULFURIC ACID PARTICULATE MATTER EMISSIONS FROM STATIONARY SOURCES
EPA Method 5 B

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
If stainless steel probe nozzles were used, were they made of seamless tubing?	Method 5 6.1.1.1				
Were sampling temperature sensors capable of measuring to within ±3°C?	Method 5 6.1.1.7				
Were temperature sensors installed so that sensors were in direct contact with the sample gas?	Method 5 6.1.1.7				
Were the first, third, and fourth impingers modified to that a glass tube extended to about 1.3 cm from flask bottom?	Method 5 6.1.1.8				
Did second impingers have standard tips?	Method 5 6.1.1.8				
Did first and second impingers contain known quantities of water?	Method 5 6.1.1.8				
Were third impingers empty?	Method 5 6.1.1.8				
Did fourth impingers contain known quantities of silica gel?	Method 5 6.1.1.8				
If particulate matters collected in impingers were measured, were sample trains setup exactly as dictated by the method?	Method 5 6.1.1.8				
If metering systems were used in conjunction with pitot tubes, did the systems allow for periodic checks of isokinetic rates?	Method 5 6.1.1.9				
Were barometers capable of measuring atmospheric pressure to within 2.5 mm Hg?	Method 5 6.1.2				
Notes/Comments:					

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If weather station barometric pressure readings were used, were they adjusted for elevation differences between station and sampling point at a rate of 2.5 mm Hg/ 30 m elevation?	Method 5 6.1.2				
Were probe liner and filter heating systems capable of maintaining sample gas temperatures of 160±14°C?	6.1				
Were silica gel aliquots weighed prior to introduction into to their impingers?	Method 5 8.1.1				
Were filters checked against light for irregularities, flaws, or holes?	Method 5 8.1.2				
Were filters associated with their containers at all times?	Method 5 8.1.2				
Were filters dried in an oven at 160±5°C for 2 to 3 hours and cooled for 2 hours?	8.1				
Were filters desiccated at 20 ± 5.6^{o}C at ambient temperature for 24 hours?	Method 5 8.1.3				
Were filters weighed to 0.1 mg at intervals of 6 hours to a ≤0.5 mg change?	Method 5 8.1.3				
Alternatively, were filters oven dried at 105^{o}C for 2-3 hours, desiccated for 2 hours, and weighed? (No mention of constant weight)	Method 5 8.1.3				
Were filters exposed to atmosphere for a total of less than 2 minutes during each weighing?	Method 5 8.1.3				
Were nozzle sizes not changed during runs?	Method 5 8.2.2				
Were sampling times per point not less than 2 minutes?	Method 5 8.2.4				
Were all openings in sample trains closed from prior to assembly until just before sampling began?	Method 5 8.3.1				
Was care taken to avoid putting enough silica gel in the fourth impingers to be entrained and carried away?	Method 5 8.3.1				
Were gloves or tweezers used to handle filters after preparation, weighing, and sampling?	Method 5 8.3.2 8.7.6.1				
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Were filters checked for tears after sampling?	Method 5 8.3.2				
Were O-rings used in filter-holders appropriately heat resistant?	Method 5 8.3.3				
If silicone grease was used, was care taken to avoid contaminating samples with it?	Method 5 8.3.4				
Was crushed ice placed around impingers at sampling?	Method 5 8.3.5				
Leak Checks					
Were leak checks conducted on metering system prior to initial use and after each shipment?	Method 5 8.4.1				
Were leaks in meter boxes corrected if found?	Method 5 8.4.1				
Were leak checks conducted prior to component changes on sample trains when components were changed during runs?	Method 5 8.4.3				
Were leaks corrected when above leak checks during sample runs were greater than the lesser of 0.00057 m^3/min or 4% of the average sample rate?	Method 5 8.4.3				
Were leak checks conducted at the conclusion of each sampling run at vacuums greater than or equal to the maximum value reached during the sample runs?	Method 5 8.4.4				
Were leakage rates recorded, sample volumes corrected, or samples voided when post-run leak checks were greater than 0.00057 m^3/min or 4% of the average sample rate?	Method 5 8.4.4				
Procedure					
Were dry gas meter readings recorded initially, after each sample time increment, when changes in flow rates were made, before and after leak checks, and at the conclusion of sampling?	Method 5 8.5.1				
Were probe outlets and filters maintained at a temperature of 160±14°C?	8.2				
Were flows adjusted to isokinetic conditions quickly after sampling began?	Method 5 8.5.2				
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Was care taken not to bump probe nozzles into stack walls when sampling to avoid extracting deposited materials?	Method 5 8.5.5				
Were steps taken periodically during sample runs to keep temperature around filter holders at proper temperatures during sampling runs?	Method 5 8.5.6				
Were steps taken to maintain temperatures of less than 20°C at condenser/silica gel outlets during sampling runs?	Method 5 8.5.6				
Analytical Procedure					
Were PM samples desiccated to constant weight differences of no more than 0.5 mg or 1% with no less than 6 hours of desiccation between weighings?	Method 5 11.2.1				
Alternatively, were PM samples oven dried at 104°C for 2 to 3 hours and cooled?	Method 5 11.2.1				
Were liquid samples measured to ±1 mL volumetrically or ±0.5 g gravimetrically, desiccated for 24 hours, and weighed to a constant weight?	Method 5 11.2.1				
Were silica gel portions weighed to the nearest 0.5 g?	Method 5 11.2.3				
Were acetone blanks measured either gravimetrically or volumetrically and desiccated to a constant weight?	Method 5 11.2.4				
Notes/Comments:					